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VOL. XX AIR CORPS NEWS LETTER NO. 22.
Information Division, Air Corps — November 15, 1937 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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STANDARD AIRPLANE INSTRUMENT ARRANGEMENT

By Captain C. A. Ross, Air Corps

The ideal arrangement of the various instruments on the aircraft instrument board, for the purpose of best meeting the pilot's needs for all classes of flying, instrument or otherwise, has long been the subject of considerable discussion at the Materiel Division. To date it has been impossible for pilots to agree upon a definite location of even a few of the many instruments on the present airplane instrument panel. This condition is natural, since the use of the various instruments differs considerably with each particular flying problem. For example, certain instruments, necessary in making instrument landings, are rarely, if ever, used in normal instrument flying. The location, nevertheless, is important, and they must be so placed as to be readily observed by the pilot when needed. Thus, as with most engineering problems, the instrument board layout to meet all conditions becomes of necessity a compromise.

The existence of a definite need for the standardization of instrument arrangement, insofar as space limitations will permit, which will enable a pilot, in stepping into a strange airplane, to be reasonably sure that he can locate on the instrument board any particular instrument, is generally agreed upon. Likewise, it is quite obvious that, due to structural differences in the shape and size of different airplanes, all instrument boards cannot be made alike. If, however, the majority of the more important instruments are placed in the same general location on the panel, it is believed that a definite step in the right direction will have been taken.

Past specifications have prescribed certain general instrument arrangements. At present, airplane manufacturers are being given more definite instructions, particularly for those instruments used in instrument flying. There must, however, be a certain amount of elasticity to the requirements, especially in smaller airplanes where the area of instrument board space is extremely limited. But for all airplanes, large and small, the location of what is termed the "Flight Group" of instruments has been definitely prescribed. In the near future a pilot will be able to climb into any of the newer airplanes and near the top of the panel directly in front of his eyes he will see the Sperry turn indicator. Beside it on the same level will be the Sperry flight indicator. Directly below the Sperry instruments will be found the "Secondary Flight Group," namely, the airspeed, bank and turn and rate of climb indicators. To the left, either in the same row or as near as possible, will be found the sensitive altimeter. The magnetic and radio compasses will be conveniently located near the other flight instruments. The engine instruments will be grouped together in the same general pattern with the tachometer as near as possible to the flight instruments. The remaining instruments will be placed as best suits the particular design of airplane, the location being more or less optional with the designer.

This basic arrangement of instruments is the outgrowth of the suggestions of many pilots and is considered to have sufficient merit to warrant standardization at this time.

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AERIAL PHOTOGRAPHY FOR EXPOSITION

Hamilton Field, San Rafael, Calif., is playing a small but important part in the development of the Yerba Buena Shoals ("Treasure Island") for the Exposition to be held in 1939. The actual development of this man-made island is in the hands of the District Engineer, Corps of Engineers, U.S. Army, at San Francisco, whose eyes have been multiplied through the use of aerial photographs made by the 88th Reconnaissance Squadron.

Although nothing could be further from the destructive elements of war than the engineering feat being accomplished on this site, the cooperation between the ground branch, the Corps of Engineers, and the aerial branch, with the Air Corps doing the reconnaissance necessary for the ground operation, is a feat which would be duplicated many times in case of war. That this close cooperation between the two branches can be maintained in time of peace bodes well for future co-

(Continued on Page 2).

TEST OF B-17 "FLYING FORTRESSES"

During the first two weeks of October, the Second Bombardment Group, Langley Field, Va., was engaged in a comprehensive and accurate test of the range and efficiency of the B-17 airplane under different load and speed requirements. The results have been most gratifying.

Each airplane was loaded with fourteen 300-pound bombs, normal fuel and normal crew. Take-offs were arranged for 2:00 a.m., so that the bombs could be expended at daylight after four hours' flying at 200 miles per hour.

For the most part the course flown was over water and with no visible landmarks, except an occasional light along the shoreline, from 20 to 50 miles distant. Winds of gale velocities were blowing during the first night's mission, so the navigation necessary was a problem in itself. All B-17's remained in the air under normal tactical conditions for twelve hours or more, a feat that would have been impossible in any previous type of airplane.

The crew accommodations on these ships are such that flight personnel suffered no undue hardships or fatigue. Occasional relaxation in an Arctic sleeping bag, or a sandwich with a cup of coffee, helped to keep the crew efficient and alert, and did away with the usual sluggishness and slow reactions which are so noticeable in pilots who have made a long and exhausting flight.

As Colonel Echols, Chief of the Engineering Section, Materiel Division, said: "Pilots are just beginning to become conscious of intelligent use of their power plants to obtain the greatest efficiency and life out of them."

That is what the Second Bombardment Group is striving to obtain - data which will be reliable and accurate. With four engines instead of one or two, a slight increase in efficiency means many more miles in range.

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Aerial Photography for Exposition

(Continued from Page 1).

operation in more deadly and serious circumstances.

The 88th Reconnaissance Squadron of the GHQ Air Force photographs twice monthly the exposition site, both obliquely and vertically, and submits the pictures to the District Engineer in San Francisco for positive evidence of the progress made during the period.

The photographs just recently taken were made by Private Henry F. Stapel, who was piloted by 2nd Lieut. Ted S. Faulkner, both of whom are members of the 88th Reconnaissance Squadron, which is stationed at Hamilton Field, San Rafael, Calif.

PROMOTION OF AIR CORPS OFFICERS

The following-named Air Corps officers were promoted to temporary rank, as indicated, as of October 12, 1937:

Lieut. Colonel to Colonel

John C. McDonnell

Major to Lieut. Colonel

Lester T. Miller	Francis M. Brady
Arthur B. McDaniel	Arthur E. Easterbrook

Captain to Major

Guy Kirksey	James C. Shively
Thomas H. Chapman	James C. Cluck
John M. McDonnell	William N. Amis
Angier H. Foster	Harold H. Carr
Harry H. Mills	Rufus B. Davidson
Edwin Sullivan	Stanton T. Smith
John R. Drumm	Evers Abbey
Oliver K. Robbins	Joseph P. Bailey
John R. Glascock	Clarence F. Horton
Charles G. Brenneman	Raymond R. Brown
George V. McPike	Wm. J. McKiernan, Jr.
George G. Cressey	Edwin R. McReynolds
Clarence E. Crumrine	David G. Lingle
Russell H. Cooper	Robert M. Webster
Ray L. Owens	Sigmund F. Landers
John S. Gullet	Milo N. Clark
Henry G. Woodward	Harrison G. Crocker
John R. Morgan	Ned Schramm
Roscoe C. Wriston	Jesse A. Madarasz
Chas. E. Thomas, Jr.	Edward M. Robbins
James B. Jordan	

The following additional Air Corps officers received temporary promotions, with dates of rank as indicated:

Major Warner B. Gates to Lieut. Col. from October 19, 1937.

Captain Jack C. Hodgson to Major, from October 13, 1937; Captains Stanley M. Umstead, James W. Hammond and Charles Backes, from October 14, 1937, to Major;

Captain Ray G. Harris to Major, from October 21, 1937.

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REINFORCED LANDING MATS NOW A NECESSITY

Work on the reinforcement of the landing mat at Hamilton Field, Calif., is virtually complete, with only the marking left undone. With the advent of the huge, heavily loaded, Bombardment airplanes now in use by the GHQ Air Force, the whole mat was rapidly being literally beaten to pieces. With the reinforcement, however, and the extension which is now under way, the mat will withstand the severe punishment inflicted by even the heaviest airplane.

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The pilots' day room of the 33rd Pursuit Squadron, Langley Field, Va., recently became a classroom for the junior officers of the 8th Pursuit Group, who will be subjected to an extensive five months' course in practically everything that is military and aeronautical.

AND I LEARNED ABOUT FLYING FROM THAT

By Lieut. Oxygen

ONE of my first cross-country trips was from Maxwell Field to Knoxville, Tenn., in a PT-1, powered, or underpowered, as you choose, with a 180 Hisso. It was a beautiful Sunday afternoon, and I was flying along at what I considered a reasonable altitude, about fifty to seventy-five feet. I was following a concrete highway which was lined with Sunday traffic. My speed was slightly in excess of the automobiles but not so much that I couldn't wave and signal to anyone appealing to my fancy. I had been doing this for some little time, perhaps an hour, when in the distance loomed the new Loudon, Tennessee, bridge. It was a beautiful structure freshly painted gray and possessing a high overhead arch. The river followed the highway for a distance before it madd a left turn under the new bridge. Suddenly, the thought struck me - the crowd on the highway would be thrilled "pink" if I lowered over the river and followed it under the bridge and under them. I had flown under bridges before, having gone under the one near Maxwell numerous times. There was nothing to it - just put the wheels a foot or two off the water and let her go under ---.

All eyes along the highway were upon me and my mind was made up. Carefully I swung over and got down a few feet above the river and followed the river around a gentle turn to the bridge. As I came closer I could see that I had room to spare in clearing the piers and floor of the bridge. I was in my glory, knowing the crowd was breathlessly watching as I came beneath them. I carefully approached within a hundred or two feet of the bridge, my main attention being paid to the distance above the water which, as mentioned, was about two feet. Suddenly, my heart sank - immediately in front of the bridge, directly ahead, hung an old ferry cable, completely blocking my path. Had it hung high or low I would have tried to dodge it, but it was half way, leaving me no chance. It was a huge cable or I would never have seen it, and I knew that to hit it would mean disaster.

The only thing I could possibly do I did - I stood the old PT on its tail and missed the overhead structure of the bridge by inches, ending in a complete stall. From there I managed to fly on away with the airplane strapped to me, and the last the people on the highway saw of me was a small speck in the sky.

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NO FORCED LANDING IN THREE YEARS

In setting forth the activities of the 4th Observation Squadron, Luke Field, T.H., the Scribe of that outfit states that one record it is proud of and which seemed to surprise inspecting officers is that there have been no forced landings in the Squadron since 1934. "We have our fingers crossed," he continues, "and hope the Engineering Section keep up their good work."

Touching on the work of the 4th Squadron early in October, the News Letter Correspondent states that the organization "has been busy trying to get in its department training. Besides all the other activities, we got in one day of practice aerial gunnery last week. On Friday, the 8th, General Westover inspected the post, and the quarterly load test followed. For the first time in several weeks we had all our planes in commission and had to use one attached pilot to get them all in the air for the test. Also Lieuts. Thatcher and Cannon graduated from the Wing Navigation School the same day and now we have two expert and fully qualified navigators. Monday, the 11th, the Squadron went to Hickam Field with the Group, so that our visiting Congressmen could give us a once over in a ground inspection, after which the Group flew in formation over Honolulu and the transport which was in the harbor then. Wednesday, the Inspector from the Office, Chief of the Air Corps, came around to look over all our records and airplanes. There was a review Thursday, the 14th, at Division Review Field, Schofield Barracks, after which we hope to get back to our regular work and training schedule. There is some speculation as to which squadron officers will take the course in navigation which will be taught in the Squadron under Lieut. Lindsay's supervision."

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We are glad to have the contribution at the top of this page under the heading of "And I Learned About Flying From That," which was received from the Air Corps Materiel Division, Wright Field. Whether you sign your article as "Lieut. Oxygen," "Captain Airfoil," "Major Overhaul," or what have you, we would appreciate your sending in to the News Letter any story regarding one or more incidents in your flying experience which, because of the lessons you learned therefrom, still linger in your memory. Please remember that a recital of your experience may prove very helpful to younger and less experienced pilots in the Air Corps and may save them a lot of grief. Just send in the facts if story writing is not your forte - the trimmings will, if necessary, be added in the editorial office.

V-7544, A.C.

A REVIEW FOR THE PRESIDENT AT FORT LEWIS

The garrison at Fort Lewis, Wash., was honored with a brief visit on October 1st by the President of the United States, who was enroute to his special train in Tacoma after completing his tour of the Olympic Peninsula. All ground troops of the post were turned out on the main highway, and a review formation was flown by the 91st Observation Squadron. The Presidential party did not arrive at Fort Lewis until after dark, but this did not deter Colonel Oldfield, the flight leader, from his purpose. The Squadron passed in review over the President and his staff, and was given commendable praise by the President for its participation. "Within the knowledge of our personnel," says the News Letter Correspondent, "this is the first time a night review has ever been given by the Air Corps in honor of any personage."

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POWERFUL "HAM" STATION AT HAMILTON FIELD

One of the most powerful amateur radio stations on the west coast is now under construction by two licensed amateur operators of the 88th Reconnaissance Squadron, Air Corps, at Hamilton Field, Calif.

The set, operating on 40 and 80 meter continuous wave, will have 500 watts of power in the civilian amateur system, as well as in the Army Amateur Net, in which it functions as a station of the Third District under the call letters W6NQR. It is the only station in the Army Amateur Radio System at Hamilton Field.

Built entirely by Corporal John B. Crouse and Private 1st Class Jack K. Prewitt in their spare time over a period of many months, the station will be on the air by November 15, 1937, capable of CW transmission to anywhere in the world. Both operators, who have held amateur tickets for several years, will welcome a call from any station anywhere.

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MORE ATTACK PLANES PURCHASED

The Honorable Louis Johnson, the Assistant Secretary of War, announced on November 9th that the War Department had awarded a supplemental contract to the Douglas Aircraft Company of Santa Monica, Calif., for 29 additional Model A-17A Attack airplanes at a cost of $654,155.90. These new planes are in addition to similar aircraft now being built for the Army by this Company. These planes will be constructed at the factory of the Northrop Corporation, Inglewood, Calif., a subsidiary of the Douglas Company.

They are low-wing monoplanes, with provision for a crew of two - pilot and gunner - and powered by a Pratt & Whitney two-row engine developing more than 750 horsepower, furnished by the Government. The plane is capable of cruising over 220 miles per hour and of maintaining that speed for eight hours. It carries four fixed .30 caliber and one flexible .30 caliber guns, and is designed to house 20 small bombs internally or 4 of larger type swung outside.

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PURCHASE OF BASIC COMBAT PLANES

Announcement was made by the Hon. Louis Johnson, the Assistant Secretary of War, on November 8th, that the War Department had ordered 95 basic combat planes and spare parts of a total value of $1,490,972.96, from the North American Aviation, Incorporated, of Inglewood, Calif. The order was placed by taking advantage of an option in a procurement contract now in effect with this company. The purchase of these additional planes results in a considerable reduction in the price per plane.

The basic combat airplane is a low-wing cabin monoplane, with tubular steel, fabric covered fuselage and metal wings and stabilizers. It is equipped with flaps to act as air brakes on landing; a retractable landing gear to decrease head resistance in flight; and likewise with an automatic controllable pitch propeller. It is powered by a Pratt & Whitney single-row radial engine of 550 h.p., furnished by the Government.

This plane has comparatively low landing speed and should be able to operate from small unimproved landing fields, thus making it an excellent plane for use as a courier plane. While not specifically designed for observation work, it can be used for that purpose if necessary. It carries a crew of two, has a two-way radio, all necessary instruments, landing lights, etc., and is provided with necessary fittings for mounting an aerial camera. Its primary use, however, is in courier service.

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WIVES SHOW SKILL IN HEAVING ROLLING PIN

During a recent celebration of Organization Day by the 9th Bombardment Squadron of Hamilton Field, Calif., one of the events of the day, and which attracted more interest than any of the others, was a rolling pin throwing contest by all wives, which was won by Mrs. Prince, wife of Sergeant William Prince, with a beautiful overhand delivery which almost demolished the target. This contest was keenly followed by the married men, who were probably eager to find out what their chances of slipping in at the wee hours in the morning and still living were. Everybody offered Sergeant Prince condolence.

GENERAL MARTIN'S ADDRESS TO GRADUATED FLYING STUDENTS

ADDRESSING the members of the graduating class of the Advanced Flying School, Kelly Field, Texas, on October 6th, last, Brigadier General Frederick L. Martin, Commanding General of the Third Wing, GHQ Air Force, stated:

"I hope that the guests present will pardon me if I talk directly to and for the benefit of these splendid young men in this graduating class. You have completed one year of intensive training with its trials and tribulations to you, in which you have seen some of your friends fall by the wayside. This, of course, reflects no discredit upon them at all, so you are entitled to honor and distinction upon having achieved this success, and I wish to extend to each and every one of you my heartiest congratulations. While you were receiving your instruction you were under the careful supervision and guidance of experienced officers associated with training activities. Adhere to those instructions throughout your military career. And you can well adhere to them throughout your life. Never forget them and never violate them.

Now I wish to speak to you as if my own son - who is almost your age, not quite - were in one of your shoes. And while I know that advice is seldom welcomed, it is those who need it most that like it least. So I hope that whatever advice I give you this morning you will not be so badly in need of it but what you will like it. I need not speak of your past. Each and every one of you know your past better than any other living soul. I cannot predict your future. I might help you by giving you an insight as to what may be in the future for you when you leave for your next station. If I can do so in a helpful way I will be delighted.

When you report to your new station you will be assigned to duty in some of the organizations thereat. You will first be given transition on that particular type of equipment, prior to which you will be expected to study and to master it. That means repeat many times the technical instructions which pertain to that particular equipment. Then your transition will be under the supervision of older officers, after which you will be assigned to a wing position under the guidance of an element leader - very much as you were flying today. In addition to that, you will have certain duties on the ground. Those duties will be as assistants to squadron adjutants, engineer officers, supply officers, communications, or wherever you may be needed. You will probably be shifted around some after you are assigned to duty, this in order that you may get a general grasp of the situation. Those assignments are extremely important to you, especially to your future, so get all you can out of them. Dig deep into those instructions associated with that particular department, so you know it thoroughly.

It is hardly necessary to mention to you young men, but loyalty is very essential, and I hope that you have a very keen sense of loyalty. You must be loyal to your superiors, and first you must be loyal to yourself. You must be considerate of those that are assigned for your supervision. You are now officers, and that carries with it a very serious responsibility. You are responsible for guiding the efforts of those under you. You are also responsible for being an officer and gentleman at all times and all places; that is, both on and off the military reservation. You must never bring discredit to the service. In obedience - I only wish to say always make it willing obedience. Do not obey half-heartedly. Do exactly what you are told to do, even though you do not believe in it at all. If you feel that it is so wrong it should be rectified, take it up with your superior officer after complying with your orders. It behooves you to put forth your very best efforts at all times, regardless of how trivial your assignment may seem to you. Do not neglect it, give every bit of your energy, thought and care; give it the best attention you know how. You are going to be under surveillance. They are going to observe and mark those of you who are meticulous in the performance of your duties; who can be trusted. I hope that each and every one of you can be in that category.

A great number of people- and I think this is quite true of young men as well - allow themselves to be unnecessarily disturbed mentally over little things which, after they have passed, you realize were of little or no consequence. Do not harbor in your minds those things which annoy you; throw them off. It has always been my policy to try to determine what misfortune might come upon me and to do everything I can prior to its happening to keep it from happening. But should it occur, you having done all you can - you can do more - dismiss it from your mind and look into the future. You may think that is trivial; it is not. A great many people build up a mental attitude that is just as wrong as it can be, and it has a habit of accumulating. So don't allow yourself to be annoyed.

We are always harping on excesses. There is nothing more harmful to our future, our good health, our enjoyment of old age, our appreciation by our friends, and our standing in our community than being harmful in excess. That applies to eating, drinking, working, and to recreation. There are probably more

people in this country who are suffering from poor health due to excesses than from any other cause.

Now in flying there are times when certain anxiety exists as to your outcome or your safety. I know from my own experience, and you probably have had it yourself. I am sure you have. The thing to do under those circumstances is to get control of yourself. Do not allow confusion to interrupt your normal train of thought, and consider what is best for you to do under those circumstances. I have always tried to have in my mind all those things which might happen to me that might be unfortunate. When I have plenty of time to do so, I consider how I could best extricate myself from such a predicament. Then when the emergency comes on, you already have a carefully thought out plan to grab right out of your memory and put to use. Do not deviate from it because of the fact that you may be excited at the time. Now anxiety is good for nothing if we cannot turn it into a defense, so when I stated to you to be prepared for that emergency it was as a defense from these anxious moments.

I wish to speak of the living conditions which you will find at your new station. I cannot speak exactly, because I do not know where you are going. I can say this: that the accommodations for officers at all of our air fields are becoming more crowded at all times, and unfortunately when they put officers on rental allowance they usually take the junior officers. So no doubt they will be picking on you. Your rental allowance will be only $40.00 per month. That may seem quite a lot of money to you, but try to find a place to live in the vicinity of some of our air fields and you will find that $40.00 will not rent a good place. If you are a bachelor you can get along very nicely. I hope I am not discouraging any of you young ladies.

I would like to say this for your future: select an ideal. An ideal is like a horizon, you keep striving to approach it but never get near it. Your ideal should be the best accomplishment, best traits of character, of many men. They do not all exist in any one man, but if you will try to emulate those qualities which you admire in others they will have a decided effect upon you as an individual. You want to remember that behavior is like a mirror in which everyone displays his image. People seldom improve when they have no model but themselves to copy after.

Now you are all - excepting those that have commissions - very much interested in your opportunity to get a commission in the regular service. I can give you no definite statement at this time. I will only mention to you the trend that exists. Today our procurement program for airplanes is far ahead of our procurement program for pilots. It will not be many years until we will have a decided shortage of experienced pilots. This Training Center is the only crucible from which we can obtain that material. The necessity will exist for trained pilots, and particularly those that can remain with us definitely. At the present time in our tactical organizations the grade of 2nd Lieutsnant is in a constant state of flux. There is very little permanency to it, except for those who succeed in graduating from this school and who are graduates of West Point, to provide those to come forward to take the place of those of us who are going out at the top. It is a condition that will eventually, I am sure, be corrected.

Be frugal in your habits. Whatever you do, budget. Stay out of debt, fight it with all your force. There is no habit so gratifying to a man as always paying his bills and having a little money to call his own. I advise you to start today and save $5.00 each month. That doesn't mean much now, but it will seem a lot in your new surroundings and in a few years time it amounts to a lot. It gives you an entirely different attitude toward life than if you are carrying upon your shoulders a burden of indebtedness that weighs you down.

The provision, as I remember, at the present time makes it possible for those of you just receiving your commissions to take out government life insurance within 120 days. Do not let that time elapse until you have some government life insurance. When you get further along you should have additional insurance. That is a protection for you, your relatives and your families.

Now your character - which you can't keep from anyone. That is in your face. You can develop it to some extent; you can improve on what you have. The definition for character is a perfectly educated will. Keep it as high as possible.

The remarks I have made are the result of my experience and observation over 29 years of service. You are under no obligation whatever to accept these statements without due consideration as to their value to you. I would feel bountifully repaid for the opportunity to make this address if I have made some contribution which might be helpful to you in achieving greater renown for yourself or make it possible for you to gain a greater proportion of happiness in living. When the going gets heavy and the skies are dark you may all exercise that quick judgment and tenacity of purpose which will insure you bringing your ship safely in to its home port.

May God be with you and protect you. Your destiny is in your own hands."

HITTING THE HIGH PLACES WITH THE MODERN AIRPLANE

Time: 7:30 a.m., Monday.
Place: Hamilton Field, Calif.
Action: Captain Julius T. Flock, member of the 31st Bombardment Squadron at Hamilton Field is explaining to his commanding officer a two-hour delay in a flight from Salt Lake City to March Field. Captain Flock left Salt Lake early in the morning on one of the first test flights made at Hamilton Field of the new Douglas B-18 Bombardment plane, and arrived at March Field two hours overdue.

"Well, Major, it was like this. I had heard that these new planes fly far and fast, but after all I had never flown anything newer than the Martin. So I started out from Salt Lake, figuring the usual speed and time, and off we went. We had just barely gotten our altitude and had gotten all set for the long run when I saw a bunch of lights flash past below me. 'That's funny,' I thought, 'there's no city here,' so I kept right on my course.

"I flew for two more hours without seeing a city down below or even a single light. By this time I should have been fairly close to March Field, but knowing how accurately I had figured my course I wasn't a bit nervous, and - sure enough - my confidence was rewarded when a few minutes afterward the lights of a little village stared up at me through the haze of the dawn.

"I circled the town once, twice, three times, before I realized that I had never seen this place before - surely this wasn't March Field. Hurriedly I checked my course and computed my time - this must be March Field! So, I landed in a large field adjacent to the town.

"I filled out my Form 1, stepped out of the plane and was waiting complacently for the Officer of the Day to come and meet me, when WHAM! - an eight-foot spear embedded itself in a tree, beside my ear. 'Well,' I thought, 'This is a funny way to greet a stranger,' so I dusted off my captain's bars and immediately sought to find and chastise this individual who would treat me so, after such a daring flight. Did I find him? I did not. I found a little brown pixie, who barely came up to my waist, wearing a more outlandish grass shirt than you have ever seen.

"'Here, here, son,' I said, 'is that my way to greet a visiting fireman?'

"'Blublublub,' said the runt.

"I grabbed the little pixie by the scruff of the neck and shook him until every protruding tooth quivered and shivered like jelly.

"'That will teach you to keep a civil tongue in your empty little head,' I said, letting him down.

"Off goes the pixie on a dead run. 'My, my, what a queer place,' thought I to myself, as I started off toward the town.

"After a few minutes walking underneath the palms of sunny Southern California, I came upon the queerest little town you have ever seen. There were about a hundred little grass huts surrounding an open spot, with two wooden buildings just outside the circle. I knocked on the door of the smaller wooden building and a priest came to the door.

"'Good morning, father,' I said. 'Perhaps you can tell me where I am, I hardly believe this is March Field.'

"'No,' said the priest, 'this is Suva in the Fiji Islands and I have never heard of March Field. You are just in time to attend my Sabbath services, my son.'

"I said, 'You must surely be mistaken, it says right here in the book that this is March Field, California, and I know it's Monday.'

"'Well,' said the priest, 'you can call it March Field if you like, but I have been here twelve years Christianizing these cannibals and I call it Suva.'

"Such badinage weighed heavily upon my shoulders at such an early hour, so when the father invited me in for breakfast, I accepted with alacrity. But when another little pixie brought out a bowl of poi, 'My Gawd,' says I to myself, 'he must be right,' and then it dawned on me that I hadn't allowed for the speed of the newer plane.

"Back I tore to the field, warmed up the ship, gave her the gun and retraced my steps across the international date line. One hour and fifty-five minutes later I came upon March Field, which I had thought on my first flight over it was a suburb of Salt Lake City. So, I landed two hours late, but I found out what it is to fly a really fast airplane."

Of course, the fact that there was a fifty-mile per hour head wind might have had some bearing on the fact that Captain Flock was two hours late.

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"A great deal of our aerial firing these days is being done at an altitude of 15,000 feet," says the Correspondent of the 36th Pursuit Squadron, Langley Field, Va., and he then adds: "After the first one or two attempts, we have been able to compensate for the somewhat mushy feel of the controls at that height and concentrate on the targets, with the result that the targets came down in ribbons and the pilots came down frostbitten."

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Major Lotha A. Smith (Captain), Air Corps, was promoted to the permanent rank of Major, as of October 19, 1937.

TRAINING FLIGHT BY 17TH ATTACK GROUP

On one occasion recently, 21 A-17A's of the 17th Attack Group, composed of a Headquarters squadron of three planes and three tactical squadrons of six planes each, took to the air on the first leg of an extended unit navigation flight. Although originally scheduled to arrive at Fort Leavenworth, Kansas, from March Field, Calif., on the first day, which was on a Friday, the flight was delayed overnight at Albuquerque, due to a failure in the power lines which operate the electrical servicing system at the Municipal Field.

The Group took off from Albuquerque on the following day and proceeded to Fort Leavenworth, where the first mechanical trouble was encountered - a broken exhaust valve stem. Fortunately, a new valve was obtained and installed during the night, allowing the flight to continue as a unit.

The next leg of the trip took the Group to Selfridge Field, where it was found necessary to replace a leaky three-way gas valve and an oil pressure relief valve spring. While at Selfridge Field, various items of swimming and fishing equipment were returned to pilots of the First Pursuit Group, who had inadvertently left same at Muroc Dry Lake during their outing last May.

After an extremely pleasant night's stay at Selfridge Field, the 21 planes took off for Patterson Field, where full advantage of a day's stop over was taken to inspect Wright Field. As might be expected, the interest of the enlisted men and officers centered particularly on the experimental planes and engines undergoing tests. Informal talks with the personnel at Wright Field did much to apprize the visitors of the difficulties encountered in developing new and satisfactory types of equipment to meet the growing demands of the Service activities and allow them to appreciate the thoroughness with which each piece of equipment is tested.

On the morning of Wednesday, the flight took off for Maxwell Field to visit the Air Corps Tactical School. Enroute, a two-hour stop was made at Nashville, Tenn., where the Group personnel assisted in the dedication of a new Municipal Airport in that city.

The next stop was Barksdale Field, bailiwick of the Third Attack Group. The general impression of Barksdale Field was that, in addition to being one of the largest military airports in the world, it is one of the most attractive. This impression may have been influenced by the cordial reception given the visitors by the personnel stationed there.

Leaving the green fields behind, the Group next pointed for Biggs Field, El Paso, Texas, one of the Air Corps' important transcontinental stops. After a thoroughly enjoyable overnight stay at Fort Bliss, the 21 planes left for March Field, arriving there in good order at noon on Saturday.

The entire flight was so arranged as to provide training in the various types of problems required of Attack Aviation. Rendezvous problems were flown, the rendezvous points in all cases being from six to eight hundred miles from the starting point. Attack and navigation flights were assigned the various units. Emphasis was placed upon the accurate timing of arrival at a designated point and, to the credit of the 17th Group, it may be said that their work was excellent. Simulated attacks were conducted.

Another purpose of the flight was to acquaint the personnel involved with the activities of other Air Corps stations and schools at Leavenworth and Maxwell Fields, at which places the stopovers were most enjoyable as well as instructive.

The flight also served to furnish an accurate idea of the maintenance difficulties that might be expected on an extended trip involving a large number of airplanes. Aside from the three replacements of parts previously mentioned, no difficulties were encountered. Spark plug trouble was noticeable by its complete absence. From a maintenance standpoint, the flight was a fitting tribute to the practical value of the maintenance system as conducted by an efficient, intelligent enlisted personnel, and attested to the excellent quality of equipment furnished by the Materiel Division.

In all, a total of 665 hours of flying was completed in various phases of training. The average gas and oil consumption per hour for the flight was 40 gallons of gas and 5.5 quarts of oil per plane. The day and hour schedule was strictly adhered to, except for the delay occasioned at Albuquerque by the failure of the gasoline servicing system.

Aside from the training involved, the flight was a complete success socially, a cordial reception being extended by all stations visited.

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The Second Bombardment Group Navigation School, which was formerly conducted by the 21st Reconnaissance Squadron, was on September 30th transferred to the Headquarters and Headquarters Squadron, 2nd Bombardment Group, GHQ Air Force, Langley Field, Va. First Lieuts. J.W. Egan, Senior Instructor, and C.H. Rees, Assistant Instructor of the Navigation School, were also relieved from assignment to the 21st Reconnaissance Squadron on September 30th and assigned to the Headquarters and Headquarters Squadron of the Second Bombardment Group.

THE CRASH OF THE C-27A TRANSPORT PLANE IN PANAMA

Further reference is made to the crash near Aguadulce, Panama, on August 3rd last, of the C-27A Transport plane, piloted by 2nd Lieut. Thomas J. Schofield, Air Reserve, a brief account of which appeared in a previous issue of the Air Corps News Letter. It will be recalled that the pilot and his five passengers reached the ground safely through the medium of their parachutes.

It is interesting to note that while these men landed only about eight miles north of the National Highway, it took them almost two full days to reach this highway, and they were not returned to their home station until the third day, this because of the nature of the terrain over which they were flying. Had they landed south of the National Highway, they would have been in a position to have been picked up very soon after landing. This is an indication of the nature of the country in Panama.

Lieut. Schofield has submitted a particularly interesting narrative report on this most remarkable accident and, under the belief that this report will prove of interest to all Air Corps personnel, it is quoted below, as follows:

"At 1:10 p.m., August 3, 1937, I took off from Albrook Field, Canal Zone, in the Bellanca with seven men, some provisions for the Gunnery Camp at Rio Hato, and baggage and equipment belonging to three of the men who were leaving for a thirty-day hunting trip in the Volcan area. The weather at Albrook, along the route to Rio Hato and at Rio Hato was excellent.

I made a good landing at Rio Hato at 1:45; taxied up close to the building housing the men and radio station and immediately discharged the supplies for Rio Hato and two of the passengers. At 1:55 I taxied out and took off for David, Republic de Panama, setting my course on 270 degrees. At that time the weather was still excellent at Rio Hato but I could see a rain squall about twenty miles away and a little to the right of my course, which was due west. Also, I could see large cumulus clouds on my course, though many miles ahead. I had passed Aguadulce and was to the hills of the northern part of the Mala Peninsula before I reached the first cloud. The base of the clouds was about 4000 feet with numerous rain and darkened areas to the south, west and north. Flying just south of some of the larger cumulus clouds, I encountered up-drafts of air which enabled me to climb at a thousand feet a minute with the ship in a horizontal plane. At 10,500 feet I levelled out and continued still on a westerly course. The large cumulus clouds were separate and distinct from one another, although fairly close together. Ground could be seen plainly between them, and under the clouds it appeared for the most part to be good weather with the exception of the small rain areas aforementioned. I reported my position to GA (the ground station at Albrook) and to RH-7 (the ground station at Rio Hato) when I passed Calobre and Cañazas. From Cañazas on to just before the position of the accident, there seemed to be no more rain under the clouds. Some of these cumulus clouds appeared to attain an altitude of about 20,000 feet, although the tops of the majority of them were below 10,000. Nearly all seemed to have their base at about 4,000 feet. On my climb to 10,000 feet, I had not flown through any clouds but after I had levelled off, I flew over some, beside some and through some. At 2:45 I could see the Chiriqui Gulf from 30 degrees to 90 degrees to my left and as I had seen Montijo Bay off my left wing at about 2:25, I started to descend, knowing that I must be about forty miles from David. I throttled back a little and set the controls so that we were losing 200 feet a minute at 130 miles an hour, air speed.

At this time I was flying in a large area free from any clouds whatsoever. Directly ahead of me, however, was a very large cumulous cloud whose top seemed to be about 20,000 feet. To the right of it, or due north, were other cumulus clouds close up to, though not touching, the larger one, whose tops appeared to be about 12,000 feet. The top of 'El Volcan Chiriqui' could be seen clearly at intervals in between the tops of these, though many miles further.

Just to the south and extending north to the large cumulous cloud was a darkened area of low visibility in which it appeared to be raining, although there was no cloud formation as such. The top of this area shaded off in color until at about 12 or 14 thousand feet it was clear and unlimited with no other layer; and only the high feathers of the alto cirrus marring the clear blue. The darkened area immediately in front of me, however, ran only from the large cumulous cloud to the coast, making it about fifteen miles wide, the coast line being clear.

At just a slightly lower altitude than that of the airplane and just a few degrees to the left appeared a strata of clear air, separating the darkened area into upper and lower portions, and extending from about the middle of the curtain, north nearly to the large cumulous cloud. A little further to my left, about 15 or 20 degrees, and quite some distance away, through the curtain toward which I flew, I could see intermittent lightning and a very dark area. This appeared to me to be quite distant

and over the Charco Azul Bay which is twenty miles southwest of David, my destination. Through the darkened area, I could see lighter spots, causing me to believe that the area was not very thick but merely a sheet of rain. Several courses to David were open to me. They were as follows:

1. Continue the present course of 270 degrees and fly through the large cumulous cloud.
2. Climb about 2000 feet and turn north a sufficient number of degrees to enable me to fly around the large cumulous cloud and over its smaller neighbors.
3. Turn south to the coast and around the dark area.
4. Lose some altitude almost straight ahead, and go through the light strata between the two darker portions.

I elected the fourth alternative and started to descend, changing the course just a little to the left in order to enter this strata of clear air with part of the darkened area above me and part below me. When I had just about approached the curtain, I found that the clear area was still a little bit below me. Instead of diving the ship and entering this area horizontally, I continued on my same angle of descent thinking to intercept the cleared area within a very few seconds. As I entered this curtain, I encountered heavy rain, the drops being very large. I had flown in the rain for only about a minute or two, when I decided to turn around. Therefore, on instruments, although not flying blind (for there appeared to be about two miles visibility), I started a medium bank to the left and had completed about 90 degrees of the turn when I saw, just to my right, a large clear area in which there seemed to be no rain. I, therefore, turned 90 degrees to my right to bring me into this area. Just as I had finished my 90 degrees of right turn (which brought me back to my original course of 270 degrees), I broke into this clear area which seemed to be a circular area 8 or 10 miles in diameter with a dark ceiling just above me. I found that I had entered the area from a tangent so that I was just inside its circumference and that most of it was ahead and to the right. In this area there was no rain and objects on the ground could be distinguished clearly.

I had just looked at the ground and was looking at the instruments, some of which read as follows:

Sperry horizon, 45 degrees.
Altimeter, 9500 feet.
Rate of decline, 200 feet a minute.
Air speed, 140 miles an hour.
Manifold pressure, 27" Hg.
Temperature, plus 2 degrees C.

The motor was running perfectly. It had spluttered a few times after starting to descend but had picked up immediately upon a partial closing of the altitude adjustment.

Wishing to shallow the bank, I turned the wheel to the left and with a straightened leg, pushed the left rudder. Just as I was in the act of doing this, there was a violent shuddering, seeming to come from the tail. Even as I jerked back on the throttle there was a terrific explosive noise. The left rudder pedal thrust back at me violently, knocking me over in the right-rear corner of the cockpit. The controls had gone loose with a snap. The shuddering had lasted only about one-half a second, or about as long as it took me to close the throttle when my hand was already on it.

Immediately after the report, my seat and cabin were rolling in a clockwise direction. As I came up from the bottom of the roll, I pulled myself back into the seat, opened my safety belt which had been around my knees, with my left hand grabbed the D-ring of the pilot's emergency trap door. With this as a hand-hold, I attempted to turn to the right to look back into the cabin. Something was at my back and shoulders which prevented me from doing so. At that instant I was thrown out, presumably by the blowing off of the emergency trap door. At the instant of going out, I could distinctly hear the motor ticking over nicely.

Events at this point are a blur until I found myself floating on my back with the fuselage of the ship a short distance above me, but not seeming to fall as rapidly as I. The axis of the fuselage was still horizontal and was still rolling in a clock-wise direction. There were no wings, or fabric on the fuselage members except for a dark blur at the tail. There appeared to be no vertical fin or elevators, either. Wreckage was all over the sky, bits of it falling at the same rate of speed as I, pieces falling faster, and some falling slower. I delayed opening my parachute because it appeared that the skeleton fuselage was falling directly at me. After what appeared to be quite a long time, but actually was only a second or so, I did yank my ripcord. After a horrible jerk, I glanced at my watch, saw that it read 2:55, was startled by the now total lack of noise, and began to count the other parachutes in the sky. Three were grouped close together much higher than I was; one was close to me and just a little lower. The sixth I could not find, but was informed a little later, when on the ground, that it had been just above me and hidden by the silk of my chute. I watched what was left of the fuselage, a mere skeleton, flash by me and strike at the edge of a small clearing in the jungle.

As I was close to the trees then, though on the other side of a steep hill

from which the fuselage had hit, I jacknifed my body, covered my face and head with my forearms and hands and crashed through the upper branches of a tree, felt the 'chute caught by these same branches and grabbed a limb close to the trunk with my first swing. Shortly after my parachute had opened, I observed that I was drifting in a northerly direction toward the higher mountains. Then followed a strata or air current which caused the parachute to oscillate violently. Below this strata the air was smooth again, but drifting me in the opposite direction, southerly and toward the now distant Pacific.

Since just before the accident, the weather was good. There was no rain. The horizontal visibility at the altitude at which my chute opened was about 20 miles. I could see mountains on one side and the coast line on the other. I had been on the ground for about two hours before any rain fell on the locality in which I landed.

From examination of the skeleton fuselage on the ground after it had hit, it was found that the landing gear, the sesqui-plane struts, the left stabilizer and the motor were still attached to the fuselage members, but all the fabric, with the exception of a little at the tail, had been torn from the fuselage before impact with the ground. There were no signs of any large pieces of the wings on the ground, nor had the wings been seen in the air by any of the men while descending in parachutes. Many pieces of yellow fabric were seen both in the air and on the ground, but no wing section, as such. One of the men reported seeing one of the gas tanks falling free. This is corroborated by the fact that though one gas tank is in the wreckage of the fuselage on the ground, the other tank is quite some distance from that wreckage.

The men in the cabin, although having their parachutes on and buckled, did not have their seat safety belts buckled. Three of the men were thrown out of the fuselage and remember nothing between the time of the shuddering and when they were falling free. The other two men found themselves half in and half out of the side of the fuselage tangled in wire cable. They report there being no fabric on the fuselage at that time. The three men who were thrown out were the ones who were grouped together and much higher than myself and the other two men when all chutes were open. Those three men landed not far from where the fuselage had struck the earth, though we three landed at a considerable distance from it."

In commenting on the weather conditions which led to this accident, the Weather Section of the Training and Operations Division, Office of the Chief of the Air Corps, states that the two physical phenomena, either of which conceivably might have caused this accident, namely a static discharge or a violent gust, are now the subject of conjecture and research among the foremost scientists connected with these problems as to the ramifications of the nature and forces developed.

The Weather Section offers the following as a possible cause. As a result of recent study it now appears that the loads introduced by gusts on aircraft are, under maximum observed conditions, considerably greater than heretofore assumed. Maximum gustiness is known to occur in regions of thunderstorms. From various considerations it is known that vertical currents of the order of 250 miles per hour exist in the most violent of these storms. Velocities of this order will be found only in the cumulus clouds associated. It is believed, however, that high velocity gusts will be found in the region close to such clouds, their maximum intensity being only a matter of conjecture to date. The airplane involved had wooden spars in the main wings, which possibly had deteriorated considerably from their original strength, as a result of being for some time in the tropics. It is quite conceivable that a sufficiently violent gust was encountered to tear the wings off. The resulting openings in the fuselage would then act as air scoops and tear off the fabric in the same manner as a thin paper bag may be blown up to the bursting point.

While it would appear that this would result in only a few major tears, it is believed that the flapping fabric would shortly be completely stripped. The clockwise rolling of the fuselage could have been due to the unequal remnants of the wings on the two sides remaining or to a partial failure and collapse of the tail section.

As to the cause of this accident, the Air Corps Materiel Division, Wright Field, is of the belief that had the airplane encountered a gust of sufficient intensity to cause failure to the structure the power plant, together with part of its mount, would be the first part of the structure to leave the airplane.

Estimating that the gross weight of the airplane at the time of the accident was 7800 pounds (the design gross weight being 9592 pounds), it is stated that with the gross weight of 7800 pounds the ultimate load factor would be increased from 5.5 to 6.5, except for the power plant supporting structure or other structural members supporting concentrated loads whose weights do not change in flight. In this accident there was no such structural failure reported; therefore it is believed that no gust of sufficient intensity to cause failure to the airplane was encountered. Calculations show that

the airplane would fail if it encountered a positive sharp edge gust of 62.5 feet per second, or a negative sharp edge gust of 51.3 feet per second. Gusts of such magnitude have never been recorded.

The Materiel Division further goes on to say that the loose control described in the report indicates a structural failure in the rear portion of the airplane, while the blowing off of the fabric indicates the sudden expansion of air inside the structure, which may have been caused by lightning. The violent shuddering of the airplane indicates flutter in the tail surfaces or wing, or both, which could be caused by a gust or looseness in the structure or control system, due to excessive wear. The possible structural failure in the rear portion of the fuselage indicated by the action of the rudder controls may have been caused by a previous hard landing, or there may have been fatigue failure in the structural members.

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CHIEF OF THE AIR CORPS VISITS HAWAII

On Thursday, October 7th, Hawaii was honored by the arrival of Major General Oscar Westover, Chief of the Air Corps. General and Mrs. Westover arrived on the U.S.A.T. ST. MIHIEL, and were greeted by a flight of B-12's of the 5th Composite Group early on the morning of their arrival about fifty miles from Oahu. On Friday, General Westover visited Luke Field for an inspection of the Hawaiian Air Depot and the tactical units. The inspecting party arrived by air from Bellows Field and took off soon after in the C-33 to witness bombing by all units of the Group. Formation bombing against water targets was conducted. One target was located off Oahu and the other off Molokai. Both targets were made available to the Group by Naval units stationed at Pearl Harbor. After the inspection, General Westover and his party, which included Brigadier General Barton K. Yount and Colonel Robert C. Candee, of the 18th Wing, were guests at a luncheon at the Luke Field Officers' Club.

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"IRON LUNG" TRANSPORTED IN ARMY PLANE

An errand of mercy was performed by Master Sergeant Carlton P. Smith, pilot of the 3rd Transport Squadron at the San Antonio Air Depot, who on October 16th flew a Transport plane to Wichita Falls, Texas, and picked up an "iron lung," which had been purchased by Wichita Falls residents, and carried it to Tulsa, Oklahoma, from which place an infantile paralysis patient, Dorothy Ruth Chastain, 16, in a critical condition, was to be returned to Wichita Falls. She was placed in the "iron lung" and flown back to Wichita Falls by Sergeant Smith, who returned to the San Antonio Air Depot on October 19th, having been delayed on the trip by bad weather and engine trouble. The patient's father, Mr. J.H. Chastain, had requested the War Department for the loan of this Transport, and the journey was performed under War Department instructions through Eighth Corps Area Headquarters.

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CHANGE IN DESIGNATION OF ACTC CLASSES

A change in the designation of classes at the Air Corps Training Center was ordered by Brigadier General James E. Chaney, Commandant, on September 29th. From now on, classes will be designated according to the year and time of year that they finish the course. Thus, Class 38-A is the class which will graduate in February of 1938. This class is at present undergoing training at the Advanced Flying School at Kelly Field, Texas. This change will greatly facilitate the identification of classes, as well as permit them to retain the same designation, whether at the Primary or Advanced Flying Schools.

Due to changes in methods of instruction and in types of equipment, the hours of training, both on the ground and in the air, have been changed for Class 38-A. The reduction of flying hours consists generally of a reduction in formation and training in fundamentals, including time and distance problems; in bi-motor transition and accuracy; and, in the case of the Observation Section, a reduction in transition and accuracy. In Ground School training the lectures on Bombardment, Pursuit and Attack Aviation have been reduced one hour each. All Bombardment Aviation subjects have been dropped, since Bombardment Aviation is no longer taught at the Training Center. The course in Combat Orders has been reduced two hours.

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VISITORS AT ADVANCED FLYING SCHOOL

The Air Corps Advanced Flying School, Kelly Field, Texas, received a visit on October 13th from the Royal Italian Consul of New Orleans, the Marchese Dian Gerolamo Chiavari. He was accompanied by a party of fifteen, including Mr. Henry A. Guerra, of the San Antonio Chamber of Commerce. The Consul and his party were particularly interested in the various types of airplanes in use at Kelly Field and in the new miniature range building.

The party was accompanied on a tour of inspection of the field by the Commandant of the Advanced Flying School, Colonel Arnold N. Krogstad, and the Assistant Commandant, Colonel E. A. Lohman.

THE FOG BUSTERS OF THE NORTHWEST

According to the News Letter Correspondent, the members of the 91st Observation Squadron are undergoing a very odd evolutionary transition in this little known part of the western hemisphere, and he then goes on to say:

"In previous News Letter reports we told you that we were known as the 'Fog Busters of the Northwest,' not realizing at the time that a strange physical change was taking place in our anatomical makeup. This is much like an Alice-in-Wonderland story which many of you from the outer world won't believe without seeing, so we are submitting a pictorial proof. The picture on the left shows in detail the changed appearance of our personnel that survived the first year in this saturated fog-belt of the Puget Sound Area. Needless to say, we welcome this adaptation to this climate. We find our web feet ideal for paddling home through the soup when returning from cross-country trips. Our eave-like ears shed water perfectly, thus protecting our hearing when trying to locate the cone of silence, and a couple of vibratory quacks from our bills entirely eliminate all ice.

The part of our equipment we like best is the right-handed parasol, which is guaranteed to keep the 'hoisting hand' dry in any weather. Private Stepp, our photo department artist, is responsible for this composite picture of our appearance.

Other than the abnormal situation pictured above, here's news about the Squadron's activities during September. The month was devoted to aerial gunnery on ground targets, which was the first use of our O-46A equipment for this purpose. The results were far from satisfactory, and there were no exceptionally high scores made. There was a difference of opinion among the pilots at the start of the practice period as to how the wing guns should be sighted with respect to the sighting bar. Half the pilots wanted the gun sighted parallel to the bar sight, so that by aiming at an assumed spot on the lower left of the target, the shots would reach the bullseye. The other half wanted their guns sighted to coincide at 700 feet, which system was finally adopted by all gunners. Although this gave an error at all ranges other than 700 feet, it was found more natural to aim at the target center than at an imaginary point.

Ground tests of the guns at this range showed a dispersion of about two and one-half feet, which may be accounted for by the type of mounting used. This is far from satisfactory, and we do not expect the high scores possible with the old type synchronized guns can be equalled with our new equipment."

V-7544, A.C.

BIOGRAPHIES

LIEUT. COLONEL DONALD H. WILSON

Lieut. Colonel Donald H. Wilson, Air Corps, at present on duty as instructor at the Air Corps Tactical School at Maxwell Field, Ala., became interested in aviation in his boyhood days. He is a native of Hiner Hill, West Virginia, where he was born on September 25, 1892. Some years before the war, he built a large biplane glider and made hundreds of short flights therein with the assistance of a troop of Boy Scouts in his charge.

After graduating from the public schools of Baltimore, Md., in 1906, Colonel Wilson attended the Baltimore Polytechnic Institute for three years. For six years thereafter he was engaged in securing data and making maps of all kinds used in railroad work, including surveying, both preliminary and location. In February, 1916, he enlisted in the 5th Maryland National Guard Infantry, serving in that organization as Corporal, Sergeant and Supply Sergeant until April 9, 1917, when he was commissioned a second lieutenant. He was promoted to a first lieutenancy in the National Guard on May 2, 1917. During the year 1917, he took a special course in aeronautics at the Massachusetts Institute of Technology, Cambridge, Mass., for candidates for commissions in the Army and Navy Aerial Reserve, which course was under the tutelage of Prof. Alexander Klemin.

When the 5th Maryland Infantry was mustered into the Federal service for duty along the Mexican border, Colonel Wilson served for eight months at Eagle Pass, Texas, and during the World War, when this regiment was again Federalized, he served for one year at Camp McClellan, Anniston, Ala. He sailed for overseas duty in June, 1918, and for several months was stationed in the Vosges-Switzerland Sector. From September 27 to October 15, 1918, he attended the school for flying officers at St.Maxient, France, and from October 17 to November 2, 1918, he was a student in the Field Artillery School at Camp DeSouge, France. He was then transferred to the 2nd Aviation Instruction Center at Tours, France, where he was on duty as a student aerial observer until December 13, 1918. Thereafter, until May 15, 1919, he was on duty in the same capacity at the Second Corps Aeronautical School at Chatillion Sur Seine, France. In addition, he was attached to the 20th Company, 4th Motor Mechanics Regiment, Air Service, for duty as Post Adjutant, from February 12, 1919. Transferred to Kettig, Germany, May 21, 1919, he was assigned to the 186th Aero Squadron for duty as aerial observer.

Colonel Wilson was honorably discharged from the military service, August 15, 1919. Over a year later, on September 18, 1920, he was commissioned a first lieutenant, Air Service, Regular Army, with rank from July 1, 1920. He was promoted to Captain with the same date of rank. His first assignment under his regular commission was duty as Acting Air Officer of the 3rd Corps Area until October 20, 1920, when he was transferred to Post Field, Fort Sill, Okla., where he took a refresher course in aerial observation at the Field Artillery School of Fire. He also served as instructor in the garrison school at that post and as instructor in Infantry Liaison at the Air Corps Observation School. Completing the course of instruction at the Field Artillery School on April 9, 1921, he remained at Fort Sill as instructor at the Air Service Observation School, in addition to performing various other duties, until January 13, 1922, when he was transferred to Carlstrom Field, Arcadia, Fla., for duty as student at the Air Service Primary Flying School. In June, 1922, following the completion of the primary flying course, he was transferred to Kelly Field, Texas, for advanced flying training, graduating and receiving the ratings of Airplane Pilot and Airplane Observer as of January 23, 1923.

Retained at Kelly Field for duty, Colonel Wilson was assigned to the 10th School Group and, in addition to duty as Senior Instructor, Department of Observation, at the Advanced Flying School, he performed various other functions, including those of commanding officer of the 42nd School Squadron. In the latter part of July, 1924, when he was transferred to the Office of the Chief of Air Service, Washington, D.C., he was assigned to the Reserve Section of the Training and War Plans Division.

Three years later, in August, 1927, Colonel Wilson was detailed to foreign service, and during the major portion of his two years of duty at Camp Nichols, Rizal, P.I., he commanded Flight B of the 2nd Observation Squadron. Transferred to Langley Field, Va., he was assigned to duty as instructor at the Air Corps Tactical School. He was a student at this School during the school year 1930-1931, and upon his graduation in June, he resumed duty as instructor at the Tactical School until his assignment, in August, 1934, as a student at the Command and General Staff School at Fort Leavenworth, Kansas, to pursue a two-year course of instruction. While on duty as instructor he also served as a member of the Air Corps Board at Maxwell Field.

Upon his graduation in June, 1936, from the Command and General Staff School, Colonel Wilson was once more assigned as Instructor at Maxwell Field.

LIEUT. COLONEL WILLIAM O. BUTLER

Lieut. Colonel William O. Butler, Air Corps, now in command of France Field, Panama Canal Zone, and the 6th Composite Group, is a native of Virginia, where he was born on September 23, 1895. He graduated from the U.S. Military Academy on April 20, 1917, was commissioned a second lieutenant, and assigned to the 6th Field Artillery. He was promoted to first lieutenant on May 15, 1917. From June 12 to July 22, 1917, he served with his regiment at Fort Douglas, Arizona, and was then ordered to duty overseas.

From September 1 to October 15, 1917, Colonel Butler was stationed at Valdahon, France, undergoing training as an aerial observer. Assigned to the front in Lorraine, near Einvelle, he served as aerial observer with the 73rd Balloon Company, November 1 to 20, 1917; was on duty at the Gondrecourt Training Center to December 22, 1917; served at the front to the west of Toul as aerial observer with the 91st French Balloon Company to March 1, 1918, and from that time until June 1, 1918, he was on duty with the A.E.F., commanding Company B, 2nd Balloon Squadron. He was cited by General Pasaga, commanding the 32nd French Army Corps, for exceptionally meritorious and efficient service, and was awarded the French Croix de Guerre.

Ordered to duty in the United States, Colonel Butler's next assignment was at the Army Balloon School at Lee Hall, Va., where he qualified as an aerial observer, receiving the rating as such as of July 31, 1918. While stationed at Lee Hall, he was, for the most part, in charge of instruction at the Balloon School, and at various times served temporarily as commanding officer of the post. He was relieved from duty with the Air Service on October 4, 1919, and assigned to the 10th Field Artillery at Camp Pike, Ark.

Reassigned to the Air Service in January, 1921, Colonel Butler received training at the Airship School at Langley Field, Va., and in May, 1921, was assigned as instructor at that school. He received the rating of Balloon Observer as of May 24, 1921, and that of Airship Pilot as of August 13, 1921. In September, 1921, he was detailed on the staff of the Field Officers School (later redesignated as the Tactical School) at Langley Field, as instructor, and he served in this capacity until July, 1922, when he was placed in command of the 19th Airship Company at Langley Field.

During May and June, 1925, Colonel Butler served as Operations Officer for the American balloon team competing in the International Balloon Race at Brussels, Belgium, for the Gordon-Bennett Trophy.

From September 12 to December 17, 1925, Colonel Butler was on duty at Brooks Field, Texas, and from the latter date until February 8, 1926, he was stationed at Kelly Field, Texas, where he pursued a special course in Airplane Observation at the Advanced Flying School, following the completion of which course he received the rating of Airplane Observer.

Reporting for duty at Scott Field, Belleville, Ill., in May, 1926, Colonel Butler served as Commanding Officer of the 12th Airship Company, in addition to performing various other duties, until May, 1929, when he was assigned to duty in the Philippines, with station at Camp Nichols, Rizal. Most of his service in the Philippines was with the 4th Composite Group, and he performed such duty as Post Exchange Officer, Commanding Officer of the 66th Service Squadron and as Executive Officer of Camp Nichols and the 4th Composite Group. In June, 1931, he returned to the United States and was assigned as student at the Air Corps Tactical School at Maxwell Field, Ala., graduating therefrom on June 12, 1932.

From June 29, 1932, to August 20, 1933, Colonel Butler was on duty at Langley Field as Instructor in the Extension Course of the Air Corps School, 80th Division. For the period of a month he was on duty with the Civilian Conservation Corps.

After pursuing a two-year course of instruction at the Command and General Staff School at Fort Leavenworth, Kans., August 25, 1933, to June 22, 1935, Colonel Butler was assigned as student at the Primary Flying School, Randolph Field, Texas, to undergo heavier-than-air training. He successfully completed his flying training both at Randolph Field and at the Advanced Flying School at Kelly Field, Texas, and received his fourth flying rating, that of "Airplane Pilot," as of October 7, 1936. He was then assigned to his present duty in the Panama Canal Department.

Colonel Butler received his promotion to Captain, August 25, 1919; to Major, August 1, 1932, and to Lieut. Colonel (temp.), August 26, 1936. He is on the General Staff Corps eligible list.

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THE NEWS LETTER COVER

The very attractive cover adorning this issue of the Air Corps News Letter is the artistic effort of Sergeant Frank J. Lorenz of the Headquarters and Headquarters Squadron, GHQ Air Force, Langley Field, Va.

Sergeant Lorenz is to be commended for the initiative displayed, the excellence both of concept and execution of the design, and for his praiseworthy interest in giving both time and effort to the task. We thank the Sergeant, and hope that sometime in the near future he will find time to create another cover design.

And while on the subject of News Letter cover designs, readers who are handy with the pen are cordially invited to send in appropriate designs for future use.

V-7544, A.C.

ASSIGNMENTS TO WESTERN PROCUREMENT DISTRICT

The following-named Air Corps officers have been relieved from their present assignment and duty, as indicated below, and assigned to duty at the Western Procurement District, with station in Inglewood, Calif., viz:

Major Leland C. Hurd, Air Corps Representative at plant of the Northrop Corporation at Inglewood, Calif.

Major Kenneth B. Wolfe, Air Corps Representative at plant of Northrop Corporation at Inglewood, Calif.

Major Ray G. Harris, Air Corps Representative at plant of Douglas Aircraft Co., Santa Monica, Calif.

Captain John S. Griffith, Air Corps Representative at plant of Northrop Corporation at Inglewood, Calif.

First Lieut. Daniel B. White, Air Corps Representative, Western Inspection District, Materiel Division, Santa Monica, Calif.

Major Hurd is assigned as District Representative, Western Procurement District, and the four remaining officers as Assistant District Representatives.

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WAR DEPARTMENT ORDERS

Changes of Station

To Washington, D.C.: Lieut. Colonel Lester T. Miller, from Duncan Field, Texas, to duty as a member of the War Department General Staff, effective March 19, 1938; Major John S. Gullet, from duty as Assistant Representative at the plant of the Seversky Aircraft Corporation, Farmingdale, L.I., New York, to duty in the Office of the Assistant Secretary of War.

To Denver, Colorado: 1st Lieut. Melie J. Coutlee and 2nd Lieut. Charles H. Leitner, Jr., from Barksdale Field, La.; 1st Lieuts. Jarred V. Crabb, Selfridge Field; John C. Kilborn, Randolph Field; 2nd Lieuts. Thomas F. Langben, Mitchel Field, and Henry B. Fisher, Selfridge Field, for duty as students in the Armament Course at the Denver Branch of the Air Corps Technical School.

To Randolph Field, Texas: 2nd Lieut. Ralph C. Rockwood, from Hawaiian Department; 1st Lieuts. Sam W. Cheyney and Thomas S. Power from the Philippines; 1st Lieuts. William C. Sahms and Robert W. Warren, from Hawaiian Department; 1st Lieuts. Joseph F. Carroll, Wm. J. Clinch, Jr., James P. Newberry and Roy T. Wright, from Brooks Field, Texas.

To Brooks Field, Texas: 2nd Lieut. John K. Arnold, Jr. Previous orders amended.

To Chanute Field, Ill.: Captain Joel G. O'Neal, from Randolph Field.

To Selfridge Field, Mich.: 1st Lieut. Roland O.S. Akre, from Mitchel Field.

To San Antonio Air Depot, Duncan Field, Tex. Lieut. Colonel Lester T. Miller, from Kelly Field, Texas. (Now under orders for General Staff duty next March).

Promotions

Colonel Frank M. Kennedy (temp.) to Colonel; Lieut. Colonel Junius H. Houghton (temp.) to Lieut. Colonel; Major William V. Andrews (temp.) to Major, with rank from November 1, 1937.

EXTENDED ACTIVE DUTY FOR AIR RESERVE OFFICERS

2nd Lieut. Karl Edward Baumeister, Walla Walla, Wash., to Barksdale Field, La., to October 19, 1940.

2nd Lieut. John Henry Williamson, Ninety Six, S.C., to Barksdale Field, La., to Nov. 14, 1940.

2nd Lieut. Frederick Scott, Jr., Iola, Kans., to Barksdale Field, La., to Nov. 7, 1940.

2nd Lieut. William Lewis, Jr., Glendale, Calif. to Hamilton Field, Calif., to May 14, 1938.

2nd Lieut. Robert Leslie Grove, Dallas, Tex., to Barksdale Field, La., to November 21, 1940.

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AN ADDITIONAL SUPPLY OF NAVIGATORS

The 18th Wing Navigation School at Luke Field, T.H., under the guidance of Lieut. R.C. Lindsay was concluded on October 8th by the presentation of certificates of proficiency by the Wing Commander, Brigadier General Barton K. Yount, to ten Air Corps officers who completed the course and are now rated as dead reckoning and celestial navigators. Of these ten officers, Lieuts. Ruestow, Thatcher, Chapman, Mitchell, Cannon, DuFrene and Olson are from Luke Field, and Davis Knowles and Denison from Wheeler Field.

The News Letter Correspondent states that "the quality of the work done by the students is believed to be excellent and resulted in the following averages for the entire class for the three months' course: mean difference between estimated and actual time of arrival,- 1.51 minutes per hour flown; mean error in course,- .93 degrees; average error in 'line of position, 11.84 miles based on a total of 137 observations average error in celestial 'fix' based on 29 observations,- 16.34 miles."

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Master Sergeant Nico G. Loupos, Air Corps, Ft. Riley, Kansas, was appointed a Warrant Officer, Nov. 1, 1937, and assigned to the Air Corps at Fort Riley. He originally entered the service in January, 1914; transferred to the Air Corps in June, 1919, and was appointed a Master Sergeant, October 11, 1920. He is an expert Cinematographer and Photographer, and is especially qualified as an aerial photographer.

Warrant Officer Thornton Charles Fitzsimon, stationed at Maxwell Field, Ala., is to be retired as of October 31, 1937, on account of physical disability. His original enlistment in the military service was on February 9, 1914. From October, 1917, to November, 1920, he served as an officer in the Corps of Engineers. He was appointed a Warrant Officer and assigned to the Air Corps, June 14, 1935. He served as Commanding Officer of Burgess Field, Pa., from October 23, 1935, until June, 1936, when this field was abandoned.

On October 1st, the 21st Reconnaissance Squadron, Langley Field, Va., was relieved from attachment to the Second Bombardment Group and was attached to the Second Wing of the General Headquarters Air Force.

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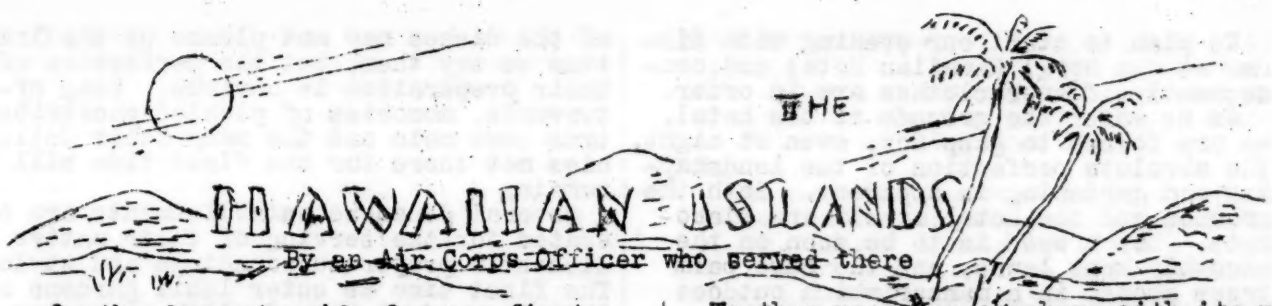

THE HAWAIIAN ISLANDS

By an Air Corps Officer who served there

On the day set aside for our first trip "Around the Island" (Oahu), there is a great deal more preparation than for a drive of similar length in "the States." A picnic lunch is assembled and bathing suits and towels form important adjuncts of the expedition.

After repeating the drive from Honolulu up the slope of Nuuanu Valley to the Pali, stopping, of course, at that point and again revelling in the outlook under different conditions of lighting from those existing on our previous visit, the descent on the windward side is again made, but the left fork of the road is taken at the bottom.

Along the sides of the road wild guava bushes grow in profusion. The fruit is the color and size of a lemon but roughly spherical in shape. We cannot resist gathering guavas and lose a lot of time on this phase of the trip.

The first beach which can be reached by side roads is Lanakai. This connects with Waimanalo beach to the south, and the latter beach extends to Makapu Head, which we rounded on our previous drive. This time, however, we are heading in the opposite direction.

It would not be right to miss a swim or at least a dip in the crystal clear water of Lanakai beach, but it must not take too long or our trip will be spoiled.

Upon leaving the beach and starting back to the main road we notice that we are passing through a lovely grove and our appetite having made itself suddenly apparent, we cannot resist stopping for at least a snack of our lunch.

After leaving the grove we see a cocoanut palm plantation which, someone in our party tells us, was planted by a corporation now defunct. Although the nuts grow and ripen, they lack the flavor of the ones grown in other climes. Naturally, we must each dislodge at least one cocoanut - not an easy task - and then find the nut covered with a very thick, tough covering of pod which, in all probability, none of us heretofore associated with cocoanuts. Having no Boy Scout axe with us, we find ourselves constrained to give up the attempt to open the nuts and end by stowing away as many as we have room for in the car.

By this time we find that we will have to hurry or complete our trip some other day. Being determined not to fail in our original plans, we now make up our mind to do some serious driving.

We then pass Kaneohe bay, with its peculiar circular coral islands, usually completely submerged except at the lowest of low tides, view stately Ulupau Head across the bay, but keep resolutely on our way.

On our left, we are told, is a long, hard walk through Lantana growth to "Sacred Falls," one of the only two small waterfalls on Oahu, and very difficult of access. The only good view of this 2,000 foot waterfall is from the air, so we continue on our way.

We drive only 10 or 15 miles before it is decided, by unanimous consent, to sit on the shore, only a short distance from the road, and finish the remains of our picnic lunch.

After lolling on the sand for a time, if, indeed, it is not so late that we must drive like mad to get back for our evening at Waikiki, we proceed on our journey. The main point of interest before rounding Kahuku Point and leaving the windward side of Oahu is the Mormon Temple and its perfectly maintained grounds at the village of Laie. This temple is very sacred to Mormons, and we are informed that funds for its support are contributed by people of this faith throughout the Pacific, even including the distant continent of Australia.

We then hurry around the numerous bays of the western coastline until we reach Haleiwa. This constitutes what is undoubtedly the best swimming and bathing beach on the island and we resolve to make another trip to this point, driving directly from Honolulu, some 35 miles away, instead of the way we have just come, spending a longer time bathing and viewing the marine gardens from one of the many small, glass bottomed boats available.

The rest of our trip takes us over the 700-foot-high plateau on which the pineapple plantations of Oahu extend in all directions, through Schofield Barracks, where the full-strength Hawaiian Division of Infantry, Artillery and Engineers is stationed, past Wheeler Field, Pearl Harbor, Kapiolani Park and so to Honolulu.

We notice that, upon leaving the plateau, cane fields abound instead of pineapples.

Although rather tired by our short trip of only 100 miles, we hurry to carry out our plans for the evening.

Waikiki! What anticipation we feel for an evening at that legendary spot!

V-7544, A.C.

We plan to start our evening with dinner at the Royal Hawaiian Hotel and, consequently, dinner clothes are in order.

As we enter the grounds of the hotel, we are forced to gasp for, even at night, the absolute perfection of the landscaping and gardening is apparent. Both the grounds and the hotel itself are elaborate. Not a weed is to be seen on the smoothly kept lawns, and the huge palm trees abound in a manner which outdoes nature. The building itself is the largest specimen of semi-Spanish structure we have ever beheld, and everything connected with it is modern to the nth degree.

We sit at a perfectly appointed table and eat the best foods with a feeling of complete relaxation. Soft strains of music and perfect, unostentatious service deter us from rushing the ceremony of our meal.

After dinner we repair to the court and are entertained by the native music and dances or by visiting entertainers from some other portion of the Pacific. Here, we learn that the hula is truly a dance of grace and is significant of the climate, the sea and the environment of the native people for ages, instead of the rather disgusting series of contortions we had previously considered it to be - from the jazz imitation usually seen in "the States."

After a little of this we saunter to the beach. On the first sight, the narrowness of the strip of coral sand is disappointing, but this feeling soon departs as the moon rises over the nearby palms and old Diamond Head. The glint of its beams on the constantly moving rollers and the surf soon start us dreaming, and the romantic nature of the setting, coupled with the sheer beauty, soon dispel any but the most pleasant thoughts and memories.

It is not long before we give an involuntary start and realize that not all our dreams are figurative. Nothing further being needed to round out a day of contentment and pleasure in living, we are well ready to retire.

Other evenings are spent in different ways. The next time we desire a modern American meal it is likely we will go to the Waialae clubhouse around Diamond Head, where we will not have the music or entertainment of the Royal Hawaiian but will view the moonlit waters of a different beach, fully as romantic as Waikiki, and look across the water to the dim outline of Molokai, some thirty miles away.

Of course, our stay in the territory would not be complete without other types of meals. The next evening takes us to one of the restaurants of Lau Yee Chai, the peer of the very best providers of Chinese food. Our ideas of noodle soup and chop suey are soon shattered upon being served a real mandarin dinner. Some of the dishes may not please us the first time we try them, but the perfection of their preparation is obvious. Long afterwards, memories of pickled shortribs, true chow mein and the many other delicacies met there for the first time will remain.

Several Japanese establishments are operated for the serving of their native dishes in proper surroundings and style. The first time we enter Ishii gardens or Ikesu's we feel very foolish at having to remove our shoes and coats - goodness, is there a hole in my socks! - and donning in their place light sandals and kimonos. Before our meal is ended our backs are tired from sitting on the scrupulously clean, matting-covered floor beside a table with legs about six inches long. We are delighted to have our "suki yaki" prepared on the table over charcoal burners by small Japanese women, the odors arising during the preparation making our mouths water. The sturdy members of our party probably essay to break the raw egg always furnished each diner over the plate of savory suki-yaki - but it does not seem just right. There are many other Japanese foods served, but suki yaki pleases the Occidental palate. The unusual surroundings and the fidgetyness, caused by the discomfort of our position, breaks down our usual reserve, and we find that each suki yaki party usually ends rather boisterously and the almost inevitable game of egg tossing terminates in minor disaster.

In addition to dinner parties, there are good moving picture houses in Honolulu, but the performances are some six months behind the same showing in the States.

Bridge is particularly delightful when indulged in on a lanai (porch) well screened from mosquitoes - because, dear reader, the rumor to the effect that there are no flies or mosquitoes in Hawaii is sadly false - with the gentle trade wind lending perfect comfort, and a view of moonlit sea available to the "dummy."

The sportsman finds three golf courses, many tennis courts, polo fields, school and army athletics of all kinds, and superlative fishing. Except at night, "still" fishing is not good. Trolling or deep water fishing are demanded, and many varieties of game fish abound, including barracuda, ono, oio, jack (three varieties - ulua, momi, and kama), dolphin, mahi-mahi, kava-kava, ava-ava, tuna, bonita (aku), and marlin swordfish. If the fisherman is willing to content himself with smaller fish, he can have ample sport with an outboard motor and a 15-to-17-foot flat-bottom boat. These may be rented at certain points. Deep sea fishing for the larger fish is rather expensive.

In the proper seasons excellent hunting may be obtained. In addition to va-

rious types of game birds - quail(on Molokai), banded doves, Chinese pheasants - Japanese deer roam the hills of Molokai, domestic sheep gone wild are to be found in Hawaii, and many wild pigs hide in the wooded slopes of nearly every island. Although the pigs are descendants of domesticated stock, they lack none of the attributes in size and fierceness of their perennially wild ccusins. In fact, boar hunting is claimed as Hawaii's most dangerous sport.

Nanikuli, the most unusual bathing beach, is on the leeward of or "kona" coast of Oahu. The slope of the coral sand is so steep that once every half hour or so the undertow will hold the incoming wave stationary until a 10 or 12-foot wall of water is built up. Any bather caught in this wave, when it finally rushes in, is bound to be rolled over and over. The experience, including getting the very adherent sand out of eyes, ears, nose and mouth, causes considerable merriment, but occasionally some bather becomes too venturesome and goes too far out where a peculiarly dangerous sucking undertow is said to exist. At any rate one or two bathers drown there annually.

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HIGH DEGREE OF NAVIGATION SKILL

The preciseness with which the modern airplanes of the Army Air Corps is now being operated was demonstrated recently on a return flight to Langley Field, Va., of four B-17 Bombardment planes which were flown to Fort Riley, Kansas, for the purpose of staging a bombing exhibition for students of the Command and General Staff School and the Cavalry School. Lieut. Colonel Robert Olds, Commanding the 2nd Bombardment Group, led the flight. The three other B-17's were commanded by Majors Caleb V. Haynes, Harold L. George and Captain Neil B. Harding.

The mission was routine and, as in other such missions, valuable lessons were learned which should prove of benefit in future cooperative missions with other units.

There was nothing routine about the return flight, however. It turned out to be a very fine example of the degree of accuracy that can be obtained by good navigation and a thorough knowledge of your equipment.

Beginning at 8:00 a.m. (CST), the four B-17's cleared for Langley Field (three from Fort Riley and one from Fort Leavenworth), at five-minute intervals, with instructions to proceed to 11,000 feet at 200 miles per hour true airspeed and at a predetermined fuel flow for an assembly over Yorktown, Va., a distance of over 1100 miles from the point of take-off. At scheduled intervals, positions of each airplane were broadcast in code in latitude and longitude and plotted in the Group Commander's lead plane. At 1:30 p.m., all planes were contacted on the command frequency and directed to change the assembly point from Yorktown to Petersburg, Va., at 5,000 feet, at 2:45 p.m.

The assembly was accomplished on course and on schedule with a reduction of only three inches manifold pressure by the leading airplane and without changing course a single degree. All airplanes were landed at Langley Field at 3:20 p.m.

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AERIAL REVIEW FOR CHIEF OF THE AIR CORPS

Six Douglas B-18 Bombardment planes from Hamilton Field, Calif., passed in aerial review before Major General Oscar Westover, Chief of the Air Corps, at 7:00 o'clock on the morning of October 18th while he was on board the Army Transport "San Mihiel" in San Francisco Bay. General Westover arrived that morning from a vacation and an inspection of Air Corps activities in Hawaii.

In his honor the six Bombardment airplanes flew over the fog and, locating a break, passed over the "San Mihiel" several times at an altitude of about 500 feet. The formation was commanded by Major James G. Taylor, and was accompanied by Lieut. Colonel George E. Stratemeyer, Commanding Officer of the 7th Bombardment Group of Hamilton Field.

Officers participating in the flight, in addition to Colonel Stratemeyer and Major Taylor, were Lieuts. Chester P. Gilger, Jo K. Warner, Oliver S. Picher, A.V.P. Anderson, Willis G. Carter, James H. Wallace, Samuel V. Payne, J.J.Morrow, D.H. Walker, Troy W. Crawford, John A. Way, Harvey T. Alness and Paul C. Ashworth.

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SKEET SHOOTING POPULAR IN HAWAII

The new Skeet Range for the personnel of Luke Field, T.H., is enjoying its full share of popularity these days. Among those using the range when the 23rd Bombardment Squadron was in charge were pilots attached to the Squadron, and they ran away with all honors. Colonel M.F. Harmon, Major Laughinghouse and Lieut. Bisson were the outstanding shots in the Group. After repeated close calls, Lieut. Bisson managed to be the first to break 25 out of 25 shots. "In all fairness though," adds the News Letter Correspondent, "it must be stated that he had to take leave in order to devote all of his time to the task in hand before he was able to accomplish this feat."

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During September, the Engineering Department of the San Antonio Air Depot overhauled 18 airplanes and 35 engines and repaired 53 airplanes and 11 engines.

SCHOOL BELLS RING AT LANGLEY "TECH."

About June 20, 1937, the Langley Field Air Base was directed to set in operation a school for the enlisted men, for the purpose of teaching the basic subjects - Shop Mathematics, Mechanical Drawing and Blueprint Reading, Elements of Electricity, Elements of Metal Work, and radio code, to prepare the men taking the course for the Chanute Field entrance examination.

Many problems presented themselves in the establishment of the school, such as the selection of a teaching staff, finding suitable quarters for the school, securing equipment, and so forth; but the obstacles were sufficiently overcome so that on July 1st the Air Base Technical School opened its doors with a class of 15 men, an increment of 15 additional men being added every 15 days, and two months being allotted each class for the completion of the course. Thus, there is a continuous student body of sixty men.

The educational qualifications of the teaching staff and office force averages one year or more of college training and the instructors have proved very efficient. Since the inauguration of the school four months ago, twenty-five men have been sent to Chanute Field, and reports of their splendid progress indicate that the training they received in the basic courses at Langley Field has been most helpful.

The problem of quarters has been the most perplexing one of all. First, the Kindergarten school building was used, but when the time came for the regular Kindergarten to begin it was necessary to vacate same. The school was then moved to the old Helium Plant. This plant was not very well adapted for school purposes. Therefore, when the C.C.C. camp, which is located on the outskirts of the post, was vacated, the school moved in.

Conditions for study and instruction and plenty of building space provides an ideal set-up for the operation of the school. Of course, all has not been a bed of roses, but due to the excellent cooperation of the Squadron Commanders, post officers, teachers and students, "Langley Tech," as some wise-cracking student called it, has moved forward.

"Our motto," says the News Letter Correspondent, "is Determination and Efficiency, and these attributes are constantly brought to the attention of the students and teachers. Langley Tech bids fair to become a great asset to the post."

Permanent school personnel are as follows:

1st Lieut. Harold W. Bowman, Officer in Charge.

Corporal Joseph A. Stenglein, Noncommissioned Officer in Charge.

Privates, Specialist 6th Class, Charles W. Echols, Warren A. Stouffer, Shirley O. Batten and Dondal G. Smith, Senior Instructor, Instructor in Electricity, Instructor in Shop Mathematics and Instructor in Mechanical Drawing, respectively.

Privates, 1st Class, AM 2nd Class, Raymond D. Carter and Joseph Taglianeeti, instructors in Shop Metal and Welding and Radio Code, respectively.

Private, 1st Class, Jessie P. Daniels, Assistant Instructor in Shop Metal and Welding.

Privates Robert W. Carlstein and Robert B. Hamilton, Caretakers.

The faculty and students of Langley Tech are very fond of pets. "Pete," a Boston Bull Pup, owned by Sergeant Oldson, is official mascot. However, he had to engage in several combats with cats in order to maintain his prestige and position. "Pete" will be missed when he goes to Chanute.

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VISIT OF NOTABLE POLISH PHYSICIAN

A distinguished Polish physician, Lieut. Colonel Anthony Fiumel, Medical Corps, Polish Army, Director of the Polish Military Aero Medical Institute and Chief of the Military Aero Medical Service, honored Randolph Field and the School of Aviation Medicine with a visit on October 8th and 9th.

He came to this country - his first visit - to attend the Aero Medical Association meeting in New York and to visit the School of Aviation Medicine at Randolph Field, Texas. Flying from the east to San Antonio, he was met by a member of the faculty of the School of Aviation Medicine. After making an official call on Brigadier General James E. Chaney, Air Corps, the Commanding General of the Air Corps Training Center, he was conducted to the school.

Colonel Fiumel proved to be a most interesting visitor. He observed in great detail the work being done at the School of Aviation Medicine and was given a demonstration in each department by its Director. He was shown through the Station Hospital by the Surgeon, and the Link Trainer was demonstrated to him by an Air Corps officer. A luncheon was tendered him at the Officers' Mess, which General Chaney attended, and this was followed by a tour of Randolph Field.

Just before his departure, Colonel Fiumel honored the Faculty and the present Flight Surgeons' Class with a short address in English. One of his many accomplishments is his ability to speak five languages, and the address in English was all the more remarkable, since he had but ten lessons in this language prior to sailing for America.

"Colonel Fiumel is one of the most stimulating characters it has ever been our pleasure to meet," declares the News

Letter Correspondent. "He is amicable, unassuming, holds one's attention in an easy manner and possesses a keen sense of humor. One of his observations to the press is as follows: 'I find the United States a nation of business men who work hard and obtain fine results. Your people do not talk much but their hard work reveals their fine character.'

The mutual exchange of ideas with representatives of foreign countries is a valuable aid to the progress of aviation medicine. We hope Colonel Fiumel returns soon."

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B.S. DEGREES FOR WEST POINT GRADUATES

A letter sent recently to all Army activities by the War Department invites attention to the provisions of Public 189, 75th Congress, approved July 8, 1937, authorizing the Superintendent of the United States Military Academy to send certificates conferring the Degree of Bachelor of Science on all living graduates of the United States Military Academy who are still in the service, active and retired, without application therefor.

The Superintendent of the Military Academy is desirous of advising all those graduates who are no longer in the service to apply for their certificates to him, giving the exact mailing address to which the certificate is to be sent. He also makes the request that Army officers communicate the above information to any Military Academy graduate not now in the service whose address is known.

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SCHOOL OPPORTUNITIES FOR RESERVE OFFICERS

Beginning with the Fiscal Year 1939, the War Department proposes to send a limited number of Air Reserve officers residing within the continental limits of the United States for an eight weeks' course at the Air Corps Tactical School at Maxwell Field, Ala. The exact number of students (depending on available appropriations) and period during which instruction will be conducted will be announced later.

Air Reserve officers selected to take this course of instruction shall be Captains, not more than 40 years of age, who have completed the subcourses requisite for promotion to the grade of major. Preference will be given those who have been on extended active duty with the Air Corps and who are otherwise qualified for taking the course.

Since this course of instruction has not been available to Air Reserve officers, the War Department desires that Corps Area Commanders cause every effort to be made to qualify as many as possible so that there will be an adequate number of eligibles from which to make selections.

THE SPECIAL TECHNICAL SCHOOL EDITION

Very favorable comments have been received from all sides on the excellence of the Special Technical School Edition of the Air Corps News Letter of November 10, 1937.

All of the work connected with the preparation and printing of this special edition was done at Chanute Field, Ill., and hearty congratulations are extended to all those who had a hand in this most worthwhile effort.

To put it briefly, this special edition tells all about the Air Corps Technical School at Chanute Field, and it does so not only through the printed word but, what is still more desirable, through the medium of a series of most interesting photographs - real action pictures which the editors of pictorial magazines love so well.

There is a slogan in the advertising field to the effect that "Pictures Make Sales." If such is the case, then this special edition of the News Letter should be the cause of the Air Corps Technical School easily selling itself to any reader of the News Letter, particularly one interested in entering a field of endeavor in one or more of the mechanical phases allied to aviation.

This Special Technical School edition is a souvenir well worth having, and the sincere thanks and appreciation of the Information Division, Office of the Chief of the Air Corps, is extended to the Commandant of the Technical School, the Assistant Commandant, and all others who contributed toward its production. It is felt that the sentiments of the Information Division in this matter are shared by the entire Air Corps.

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88TH SQUADRON RELINQUISHES ITS O-35's

The 88th Reconnaissance Squadron at Hamilton Field, Calif., is losing its three O-35 Douglas Observation airplanes. These bi-motored, high wing, gull type monoplanes are the oldest tactical type in the GHQ Air Force. They were manufactured in 1932, came to tactical service in 1933, and have been in continued service ever since. They are going to the Advanced Flying School, Kelly Field, where they will be used for advanced training in bi-motored aircraft.

"The continued operation of these airplanes," declared the News Letter Correspondent, "reflects credit upon the officers and enlisted personnel of the Squadron, in that the careful operation on the part of the pilots and the excellent quality of workmanship on the part of the ground crews has been the principal factor in the prolonged life of these airplanes and, in view of the fact that they are flown on an average of four and five hours per day, this is an excellent record.

AMERICA SPREADS HER WINGS

A booklet recently published by the Works Progress Administration, artistically illustrated by diagrams, charts and photographs (many of the latter furnished by the Air Corps) tells a graphic story of the airport and other work accomplished in the past few years through the Federal Works Program.

The charts in this booklet are prepared in a manner such as to give at a glance statistics covering the development of air transportation, aircraft construction, airport construction, various aids introduced to promote safety in flying, etc. From these charts the following facts are gleaned:

Airline passengers, who numbered 150,000 in the year 1929, grew to almost 500,000 in 1932, and to almost 1,050,000 in 1936.

Airline route mileage increased from 8,252 in 1926 to 24,864 in 1929; 28,550 in 1932, and to 28,814 in 1936.

The growth of air express and air mail was truly remarkable. From 300,000 pounds of air express in 1929, the figures mounted to one million pounds in 1932 and to seven million pounds in 1936. From approximately 250,000 pounds of air mail transported in 1926, the figures grew to 7,000,000 pounds in 1929, 9 million pounds in 1931, and approximately 16,500,000 pounds in 1936.

Aircraft passenger miles multiplied from 84,014,572 in 1930 to 127,058,798 in 1932 and to 435,502,283 in 1936.

The number of airports grew from 1,000 in 1927 to 1,500 in 1930, to 2,000 in 1933 and to 2,500 in 1936.

The number of miles of lighted airways jumped from 4,000 in 1927 to almost four times that number in 1930; to almost 20,000 miles in 1933, and to 22,000 miles in 1936.

Radio range stations increased from 30 in 1930 to almost 100 in 1933 and to 150 in 1936.

The 3,000 miles of teletype weather service in 1929 grew to about 11,500 miles in 1934 and to 13,000 miles in 1936.

The number of commercial aircraft in the United States increased considerably between the years 1927 and 1934. With less than 1,500 aircraft in 1927, the statistics for 1934 show 8,000 in 1934 and 9,000 in 1936.

In 1927 there were not quite 2,000 licensed pilots in commercial aviation in this country. This number grew to 14,000 in 1933 and to 16,000 in 1936. The number of students undergoing flying instruction increased from less than 1,000 in 1927 to 13,000 in 1929 and to 32,000 in 1936.

In connection with the advances made in the speed of aircraft, the charts show that in 1926, the average length of runways was 1,500 feet, as compared with 2,500 feet in 1933 and 5,000 feet in 1936. Aircraft speed increased from a cruising speed of about 100 miles per hour and a top speed of less than 125 miles per hour, to a cruising speed of about 150 miles per hour and a top speed of over 200 miles per hour in 1936. The first set of figures were those for 1927.

In 1936, commercial air liners carried 21 passengers, as against 14 in 1934, 10 in 1933 and 4 in airplanes of 1926 vintage.

The weight of airplanes increased from 4,000 pounds in 1927 to 17,000 pounds in 1930, to 18,000 pounds in 1934, and 32,000 pounds in 1936.

Oil consumption in aircraft operation increased from 300,000 gallons in 1929 to about 750,000 in 1932 and to 900,000 gallons in 1936. Gasoline consumption rose from 6,000,000 gallons in 1927 to 24,000,000 gallons in 1932. and to about 33,000,000 gallons in 1936.

Of each WPA dollar expended to December 1, 1936, 32.2¢ went for materials and equipment and 67.8¢ for labor. Sponsors have contributed 9.7¢ of each dollar expended on aviation projects, and of this contribution, 83.8¢ went for materials and the remaining 16.2¢ for labor.

The photographs interspersed throughout this booklet show how various air markers are placed on buildings and grounds; also some of the super air terminals in this country, major airports, airports at lakes and recreation parks, examples of work done to improve American airports; various hangars and terminal buildings; lighting beacons, and groups of students attending ground school classes in practical aeronautics - one of the air education projects of WPA.

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Major Caleb V. Haynes and Lieut. Curtis E. LeMay, of the 49th Bombardment Squadron, Langley Field, Va., and Mr. MacAvoy, of the National Advisory Committee for Aeronautics, after attending an informal engineering conference at Wright Field, Dayton, Ohio, returned to Langley Field in B-17 No. 80 in the remarkable time of one hour and 45 minutes.

Bolling Field recently received delivery of ten BT-9B's from the North American factory at Inglewood, Calif. These two-place airplanes are capable of more than 150 miles per hour.

The Northwest-Southeast runway at Bolling Field is being made about 200 feet longer.